

Application S/N 10/688,377
Amendment Dated: March 27, 2006
Response to Office Action dated: November 14, 2005

CE11587R

REMARKS/ARGUMENTS

Claims 1 and 3-30 remain pending in the application, as claim 2 has been canceled without prejudice. In the Office Action, claims 1-5, 9-10, 13-16, 18-19, 21-24 and 28-30 were rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication No. 2002/0147008 to Kallio (Kallio) in view of U.S. Patent Application Publication No. 2005/0096045 to Palmer, et al. (Palmer). Claim 1 was also rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Application Publication No. 2004/0087307 to Ibe, et al. (Ibe). In addition, claim 11 and 26-27 was rejected under 35 U.S.C. 103(a) as being unpatentable over Kallio in view of Palmer and further in view of U.S. Patent Application Publication No. 2004/0097230 to Natarajan, et al. (Natarajan). Claim 17 was rejected under 35 U.S.C. 103(a) as being unpatentable over Kallio in view of Palmer and further in view of U.S. Patent Application Publication No. 2005/0059400 to Jagadeesan, et al. (Jagadeeson). Finally, claims 6-9, 12, 20 and 25 were objected to as being dependent upon a rejected base claim.

A brief summary of the Kallio, Palmer and Ibe references may be helpful here. Kallio describes a method and system for seamless mobility between GSM networks and different radio networks, such as wireless local area networks (WLAN). In particular, Kallio notes that when a mobile station (MS) enters a WLAN, the MS establishes communication with the WLAN and receives GSM cell information messages from the WLAN (see paragraph 0036). If the GSM cell information is an accurate match and the WLAN receive level thresholds comparison indicates that the WLAN cell should be selected, the MS makes a location update attempt via the WLAN; otherwise, no location update attempt is made (see paragraph 0036). If the location

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update is accepted, the MS selects the WLAN and disconnects the GSM network (see paragraph 0036). Although this process describes the handover from GSM to WLAN, a very similar process occurs for handover from GSM to WLAN (see paragraph 0040). This handover merely involves receiving transmissions from a single WLAN cell (see paragraphs 0035-0037).

Palmer describes a method and system for determining when a mobile communication device should rate shift (change the rate of transmission) or roam (handoff from one cell to another) in a wireless environment for improved communications performance (see paragraph 0024). To do so, the communications device relies on a predictive method, which is used to predict connection quality at a future time (see paragraph 0029). Various measurements are taken from the currently serving cell and extrapolated to generate the predicted quality (see paragraphs 0029-0030). Measurements from other cells are not considered in this process.

Ibe describes a method of seamless roaming between WLANs and cellular carrier networks. Specifically, a dual-mode mobile device originates a call within a WLAN, and as the user moves closer to the edge of the network, the signal quality begins to degrade (see paragraph 0018). The mobile device has the capability to monitor the signal quality by measuring the signal-to-noise ratio (SNR) (see paragraph 0019). It is known that if the SNR reaches some threshold value "d," the voice quality becomes unacceptable (see paragraph 0019). The goal, as explained by Ibe, is to prevent the call quality from degrading to this point (see paragraph 0019). Thus, when the SNR drops to a cutoff value "r," where "r" > "d," the system initiates a handoff with the objective of completing the handoff procedure before the SNR reaches the threshold

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value "d" (see paragraph 0019). Similar to Kallio, the threshold comparison, or comparing the SNR level to "r," is based on current or present SNR of a single access point.

Independent claims 1 and 28 have been amended to clarify that quality of service values for wireless communication links with a plurality of access points that comprises a part of a wireless local area network are determined and that a likelihood that the quality of service values for the wireless communication links with the plurality of access points will have at least a predetermined relationship with respect to the at least one threshold value at a predetermined future time is also determined. In addition, claims 1 and 28 have been amended to clarify that this likelihood is used to determine whether to switch communications from the wireless local area network to a different network.

Support for the amendments can be found in paragraphs 0015, 0021, 0022 and 0028. No new matter has been added in view of these amendments. In addition, claim 21 recites the following elements: (1) monitoring wireless communication paths for at least some access points of the wireless local area network; (2) determining a plurality of measured quality of service metrics over a sampling period for each of at least some of the monitored wireless communication paths; and (3) using a probability to determine whether a wireless subscriber unit presently supporting a wireless local area network communication is likely to soon require a hand off of that communication to the wireless wide area network.

Applicant submits that no of the cited references, singly or in combination with one another, discloses these concepts. Namely, each of the prior art references is concerned with monitoring connection quality of the currently-serving access point, and

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none of them show the idea of monitoring several access points associated with a plurality of wireless links to generate a likelihood of quality of service values to help determine when to move communications from the WLAN to a different network. The present invention provides an advantage over the prior art because it presents a more accurate picture of overall future WLAN quality of service, which helps the mobile unit to make a better handoff determination.

In view of the above, Applicant submits that independent claims 1, 21 and 28 are patentable over the prior art. Applicant also believes that those claims that depend from these independent claims are patentable, both based on their dependencies on the independent claims and their patentability on their own. Reconsideration and withdrawal of the rejection of the claims is respectfully requested. Passing of this case is now believed to be in order, and a Notice of Allowance is earnestly solicited.

No amendment made was related to the statutory requirements of patentability unless expressly stated herein. No amendment made was for the purpose of narrowing the scope of any claim, unless Applicant has argued herein that such amendment was made to distinguish over a particular reference or combination of references.

In the event that the Examiner deems the present application non-allowable, it is requested that the Examiner telephone the Applicant's attorney or agent at the number indicated below so that the prosecution of the present case may be advanced by the clarification of any continuing rejection.

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The Commissioner is hereby authorized to charge any necessary fee, or credit any overpayment, to Motorola, Inc. Deposit Account No. 50-2117.

Respectfully submitted,



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